

### **REMARKS**

Claims 1-12 and 14-41 remain in the application. Claims 3 and 6 have been amended and claim 13 has been cancelled. Claims 26-41 have been withdrawn from consideration as a result of the Examiner's restriction requirement.

#### **I. The Amendments**

Minor amendments have been made to claims 3 and 6. In claim 3, a comma has been inserted between "copper" and "aluminum". In claim 6, "mn" has been deleted and replaced by the proper abbreviation for nanometer, namely, "--nm--". Claim 13 has been cancelled as being a duplicate of claim 12, as noted by the Examiner.

#### **II. Restriction Requirement**

The Examiner has required restriction to one of the following inventions under 35 USC §121:

- I. Claims 1-25 drawn to a label, classified in class 428, subclass 304.4.
- II. Claims 26-41, drawn to labeling processes, classified in class 427, subclass 207.1.

During a telephone conversation with Heidi Boehlefeld on August 31, 2005, a provisional election was made to prosecute the invention of Group I, namely, claims 1-25.

Applicants affirm the election of claims 1-25 and, accordingly, claims 26-41 have been indicated in the accompanying amendment as "withdrawn".

#### **III. The Rejections**

(A) Claims 6-21 and 23-25 have been rejected under 35 USC §112, second paragraph, as being indefinite.

The Examiner has suggested that the above identified claims are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant

regards as the invention. Reconsideration and withdrawal of the rejection is requested in view of the amendments which have been made to some of the claims, and the following remarks.

A comma has been inserted between copper and aluminum in claim 3 thereby overcoming the informality noted by the Examiner. In claim 6, "mn" has been changed to "nm" as suggested by the Examiner.

The Examiner has rejected claims 12, 23 and 25 on the basis that "proper Markush language should be utilized." Applicants respectfully disagree and traverse this rejection. There is believed to be nothing improper about the language utilized in these claims. These claims do not recite "Markush" groups so they cannot recite proper Markush groups. Reconsideration of the rejection is requested.

Claim 13 has been rejected on the basis that claim 13 adds nothing to claim 12 and appears to be a duplicate thereof. Claim 12 has been cancelled.

The Examiner has suggested that in claim 14, "proteins" are not believed to be resins. Reconsideration and withdrawal of this rejection is requested since protein is known to be a resin. For example, the Examiner's attention is directed to Whittington's Dictionary of Plastics, Second Edition, page 265 which is attached as Attachment A to this reply. Protein resins are defined as a generic term for resins derived from proteins.

(B) Claims 1-25 have been rejected under 35 USC §103(a) as being unpatentable over Dronzek U.S. 6,302,242 taken in view of Butters et al U.S. 6,117,537.

The Examiner has suggested that the primary reference discloses a multilayer label which can be suitably metallized on a desired surface (column 4, line 66 - column 5, line 2) and is also coated with a suitable water based adhesive (column 4, lines 58-59). The Examiner acknowledges that the primary reference lacks a teaching of the presence of a suitably located nano-porous layer present in the label structure.

The Examiner has suggested that the secondary reference (Butters et al) discloses a multilayer sheet suitable for use as a label (column 1, line 13) which is formed from a inkable sheet which includes a combination of a non porous polymeric layer and a porous,

ink absorbent resin layer (column 2, lines 2-5) that can feature the presence of nanoparticles and a suitable resin binder in certain embodiments.

Accordingly, the Examiner concludes

One of ordinary skill, desirous of improving the print accepting properties of the label disclosed in Dronzek, would incorporate the nano-porous layer found in the secondary reference into its disclosed metallized labels and thereby form, or render obvious, the claimed genus of labels. (Page 4).

Reconsideration and withdrawal of this rejection is requested.

The claims of the present application are directed to a label which comprises:

- (A) A polymer facestock having an upper surface and a lower surface,
- (B) A nano-porous layer having an upper surface and a lower surface wherein the upper surface of the nano-porous layer underlies the facestock, and
- (C) A metal layer overlying the upper surface of the facestock or underlying the facestock between the facestock and the nano-porous layer, said metal layer having an upper surface and a lower surface.

In another embodiment, (claims 22-24), the label also comprises (D) a water-based adhesive in contact with the lower surface of the nano-porous layer.

It is respectfully submitted that the teachings of the two references, directed to different end uses, would not appear to be sufficient to one of ordinary skill in the relevant art having the references before him to make the proposed combination or modification. In re Lintner, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). The Examiner has failed to establish a prima facie case of obviousness because (1) the prior art relied upon by the Examiner does not contain any suggestion or incentive that would have motivated one skilled in the art to modify the primary reference or to combine the references. Additionally, even if it would have been obvious to combine the references as suggested by the Examiner, the combination of references must teach or suggest all of the limitations of the claims. See In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

As noted above, the Examiner has suggested on page 4 of the recent communication that the secondary reference (Butters et al) discloses "a multilayer sheet suitable for use as a label (column 1, line 13) which is formed from an inkable sheet....".

Applicants submit that there is no teaching in Butters of the use of the inkable sheets as labels. The discussion in column 1, lines 12-29, relates to the art of using inkjet printers and the problems associated therewith. In this discussion of inkjet printing, the patentees state

Inkjet printing is already established as a technique for printing variable information such as address labels, multicolor graphics, and the like. A simple form of inkjet printer comprises.... (Column 1, lines 12-15).

A discussion of the uses for various recording sheets (the subject of the Butters et al invention) is found in column 1, lines 30-66, and Applicants find no mention of labels. Moreover, in column 5, lines 38-44, the patentees state

The inkable sheet according to the invention is particularly suitable for use in the preparation of inked transparencies for use in a transmission mode, for example, — with an overhead projector. Retention in the porous absorbent layer of the solvent medium of an applied ink ensures rapid drying of the ink, and facilitates immediate use of the imaged sheet.

Since the secondary reference relates to inkable sheets which are useful particularly for the preparation of inked transparencies, and not labels, it is respectfully submitted that one skilled in the art would not look to this reference or combine the teachings of this reference with the primary Dronzek reference. The rejection should be withdrawn.

However, even if it could be considered obvious to combine the disclosures of the two references, Applicants respectfully submit that the combined teachings would not provide a label of the construction presently claimed in, for example, in claims 6 and 22. The primary Dronzek reference discloses a multilayer label having a layer of hydrophilic solid material on one side and a water based adhesive applied to the hydrophilic layer to form a fastenable polymeric label. A metallized coating of a thin metal film may be deposited on the polymer label (column 4, lines 66 - column 5, line 2).

As noted by the Examiner, Dronzek does not teach or suggest the presence of a suitably located nano-porous layer present in the label structure. Since the secondary

reference teaches a porous ink absorbent layer on a non-porous polymeric layer to improve ink adhesion, the Examiner has concluded that it would be obvious to add a nano-porous layer to the labels disclosed by Dronzek to improve the print accepting properties. It is respectfully submitted that even if (contrary to the arguments presented above) the teachings of the two references are combined in the manner suggested by the Examiner, one skilled in the art would add the nano-porous, ink absorbing layer either to the exposed surface of the Dronzek polymeric label, or to the surface of the label which has been metallized since this would be the surface to be printed. The other surface of the polymer film of the Dronzek label has a layer of hydrophilic solid material and a layer of water based adhesive.

In contrast, in Applicants label of claim 6, the nano-porous layer underlies the facestock, and the metallized layer is on the upper surface of the polymer facestock. Accordingly, even if the teachings of the two references are combined, the combination does not result in Applicants' label as found in claim 1 (and claims dependent therefrom).

With regard to Applicants' label as described in claim 22-24 wherein an adhesive layer is present and is in contact with the lower surface of the nano-porous layer these claims are not obvious even if the two references are combined. The addition of an ink absorbing porous layer over the exposed surface of Dronzek's polymeric label or over the metallized coating of Dronzek results in a configuration different from that claimed. Applicants' nano-porous layer is between the polymer facestock and the water based adhesive or between the metallized layer and the water based adhesive.

Also, although Butters et al '537 patent describes the use of an adhesive or primer layer, such layers are described as being present between the non-porous polymer layer and the porous ink absorbent layer to improve the adhesion of the non-porous layer to the porous layer.

(C) Claims 22-25 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8, 20 and 34 of U.S. Patent No. 6,761,963 to Li et al taken in view of Dronzek '242.

The Examiner has noted that the present application is a division of the primary reference, and the above newly presented claims, which Applicants admit in their

preliminary amendment are new claims not present in the parent application, contain the further presence of a metallized layer and a label laminate. The Examiner states that this last limitation is found in Dronzek, e.g., column 4, lines 66-67 and thus with the references being clearly combinable, the claims are clearly subject to this double patenting rejection.

Reconsideration and withdrawal of this rejection is requested.

As noted by the Examiner, in Applicants' preliminary remarks filed with the above-identified divisional application on November 14, 2003, Applicants' attorney indicated that claims 22-25 did not relate to any of the original claims of the parent application. Upon further review, this statement is found to be incorrect, and Applicants' attorney apologizes for any inconvenience caused to the Examiner.

Claim 22 corresponds to original claim 17 rewritten in independent form. Original claim 17 was one of the claims specifically included in Group II of the restriction requirement in the parent application which led to the filing of this divisional application.

One difference between the subject of claims 22-25 and claims 1-12 and 14-21 is the addition of a water based adhesive layer in contact with the lower surface of the nanoporous layer. Since such claims were in the group divided out of the parent application, Applicants request the Examiner to reconsider and withdraw the rejection of claims 22-25 for obviousness type double patenting.

As an aside, in the double patenting rejection found in paragraph 12, page 5 of the recent Office Action, the Examiner suggested that claims 22-25 "contain the further presence of a metallized layer in the label laminate", and that "this last limitation, as has already been mentioned, is found in Dronzek, e.g., column 4, lines 66-67...." This statement is confusing to Applicants because all of the claims under consideration include the presence of a metal layer. Claims 22-25 add an adhesive layer. If the rejection on double patenting is not withdrawn in the next Office Action, the Examiner is requested to clarify the rejection.

#### **CONCLUSION**

It is respectfully submitted that in view of the above amendments and remarks, all of the claims which are under consideration in the present application satisfy the

requirements of 35 USC §112, and the claims are not obvious over the combination of references cited by the Examiner. An early action allowing claims 1-12 and 14-25 is solicited.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 under Attorney Docket No. AVERP3331USA.

Respectfully submitted,

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# **WHITTINGTON'S DICTIONARY OF PLASTICS**

**SECOND EDITION**

ATTACHMENT A

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# WHITTINGTON'S DICTIONARY OF PLASTICS

by

**Lloyd R. Whittington**



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**TECHNOMIC**<sup>®</sup> publication  
TECHNOMIC Publishing Co., Inc.  
265 Post Road West, Westport, CT 06880

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LCC # 78-73776  
ISBN # 0-87762-267-1  
Printed in the USA

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**Propenal**

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**Proton**

**Propenal.** See ACROLEIN.

**Propenenitrile.** See ACRYLONITRILE.

**Propenoic Acid.** See ACRYLIC ACID.

**Proportional Limit.** The greatest stress which a material is capable of sustaining without deviation from proportionality of stress and strain (Hooke's Law). It is expressed in force per unit area, usually pounds per square inch.

**n-Propyl Acetate.**  $C_3H_7OOCCH_3$ . A clear, colorless liquid with a pleasant odor, used as a solvent for cellulose, vinyls, acrylics, polystyrene, phenolics, alkyds and coumarone-indene resins.

**Propylene.** (propene)  $CH_2CH=CH_2$ . A colorless gas produced mainly by cracking propane, butane or other refinery off-gases, or by cracking hydrocarbons during the production of ethylene. It is the monomer from which polypropylene is made, and also has many uses as an intermediate.

**1,2-Propylene Glycol Mononitrate.**  $C_3H_7COOCH_2CHOHCH_3$ . A plasticizer for cellulose nitrate, ethyl cellulose, polystyrene, PVC and other vinyls.

**1,2-Propylene Glycol Mono-Oleate.**  $C_{17}H_{33}COOCH_2CHOHCH_3$ . A plasticizer for cellulose nitrate and ethyl cellulose.

**Propylene Oxide.** (1,2-propylene oxide, 1,2-epoxypropane) A low-boiling flammable liquid derived from the intermediate chlorohydrin, produced by reacting chlorine, propylene and water. Propylene oxide is an important intermediate for the manufacture of polyglycols used for urethane foams and resins and polyester resins.

**Propylene Plastics.** See POLYPROPYLENE.

**Propylene-Vinyl Chloride Copolymers.** These copolymers, ranging from 2% to 10% by weight in propylene content, provide the end-use property advantage of PVC homopolymers plus the processing advantages attributable to the introduction of stable hydrocarbon structures as end groups. Characteristics of the copolymers are ease of molding or extruding, high thermal stability and low melt viscosity.

**n-Propyl Oleate.**  $C_{17}H_{33}COOC_3H_7$ . A plasticizer for cellulose nitrate, ethyl cellulose, polystyrene, and, with limited compatibility, some vinyl and acrylic resins.

**Protein Resins.** A generic term for resins derived from proteins, constituting CASEIN PLASTICS and ZEIN, which see.

**Proton.** An elementary particle having a positive charge equivalent to the negative charge of the electron but possessing a mass approximately 1837 times as great as that of the electron. The proton is in effect the positive nucleus of the hydrogen atom.

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